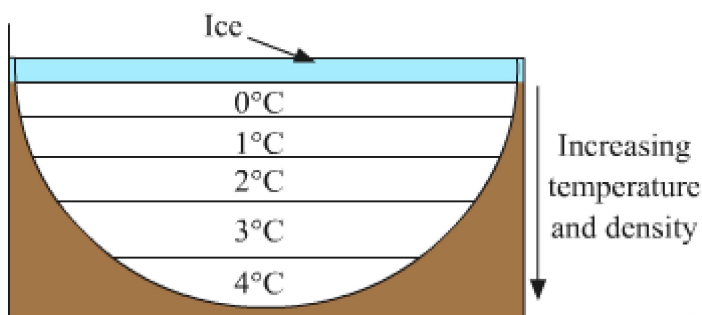


3. Properties of Natural Resources

Characteristics of Air:

- Air has mass and weight.
- Air exerts pressure in the surroundings known as the atmospheric pressure which is same in all the directions.
- When the temperature of air increases, the capacity of air to hold more water vapours increases and vice-versa.
- Air helps in maintaining the temperature of the earth for a living.
- Air provides a medium for the transmission of sound.

- Water is a fluid that has no fixed shape but volume.
- The volume of water increases due to expansion when it freezes to form ice.
- Water shows anomalous behaviour.
- Water is the most common and the most required liquid on Earth. It has many unique properties of its own.



- Objects having density more than that of the water sink into it while those with the density less than that of the water float on the surface of the water.
- A **solution** is the homogeneous mixture of two or more substances. It has two components:
 - **Solvent**- The part of the solution in which another component gets dissolved. ex-water.
 - **Solute**- The part of the solution which gets dissolved. ex-sugar.
- **Importance of water:**
 - Transportation, Habitat, Coolant, Universal Solvent and Electricity generation.

- **Soil Types**
 - Soil is a mixture of rock particles and humus.
 - Soil → Rock particle + Humus
 - Living organisms such as microbes, earthworm, and plant roots are found in soil.
- **Classification of soil**
 - **Sandy soil**
 - Sand particles are large that cannot fit together.
 - Larger spaces are present between particles.
 - It is light, well aerated, and dry.



- **Clayey soil**
 - Clay particles are smaller and tightly packed together.
 - It has little space for air and can hold water between particles.
- - **Loamy soil**
 - It is the best top soil for the growth of plants.
 - It is the mixture of sand, clay, and silt.
 - It contains humus and has the right water holding capacity.
 - Toys, pots, and statues are made up of clayey soil.
- **Structure of a soil**
 - Granular- Highly permeable
 - Block- moderately permeable
 - Columnar- moderately permeable
 - Platy- less permeable
- **Uses of soil**
 - For plant and water conservation.
 - For construction and pottery.
- **Useful soils:** China clay, shadu soil, terracotta soil and multani soil.
- **Soil testing** enables us to find out the characteristics and composition of the soil. Soil testing helps in determining the need for additional fertilizers or lime.
- **Causes of diminished soil fertility:**

Soil erosion and loss of water are the major causes of loss of fertility.

Chemical factors like use of excessive pesticides and insecticides also degrade soil.

Decreasing organic matter content in the soil also results in a less fertile soil.

Imbalance in the pH of soil also causes diminished soil fertility.